COVID-19 and Cancer Center Operations: Lessons Learned From the NCCN Best Practices Committee

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ABSTRACT

The NCCN Best Practices Committee, which is composed of senior physician, nursing, and administrative leaders from NCCN Member Institutions, evaluated the status of cancer center operations after 1 year of operating during the COVID-19 pandemic. Two major initiatives stood out: the increase in the utilization of network sites, and the gains made in telemedicine operations and reimbursement. Experts from NCCN Member Institutions participated in a webinar series in June 2021 to share their experiences, knowledge, and thoughts on these topics and discuss the impact on the future of cancer care.

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Last summer near the start of the pandemic, the NCCN Best Practices Committee conducted a webinar series on creative strategies cancer centers were using during the pandemic that would impact cancer care in the future. The webinar discussions focused on telemedicine visits, curbside clinics, and home care: all practices that made it safer to provide care during a pandemic, but which also improved the patient experience in ways that are challenging the prepandemic status quo. For example, patients who had telemedicine visits and received treatment from their vehicle or in their home would like to continue to have these options in the future. This has spurred both providers and health systems to expand the methods through which cancer care can be delivered.

This year the committee reassessed the status of cancer center operations 1 year into pandemic life, and decided to highlight 2 significant initiatives: the expanded use of and increased collaboration with network sites, and the substantial gains made in telemedicine operations and reimbursement. Experts from NCCN Member Institutions described the transformations that took place over the last year and plans for the future in a June 2021 webinar series. This is a summary of the major learnings.

Utilization of Network Satellite Sites

Over the last 2 decades, many academic medical centers have expanded their regional presence by increasing the number of owned and affiliated hospitals and ambulatory centers in neighboring areas. Today, two-thirds of community hospitals are affiliated with a larger hospital system. During the COVID-19 pandemic, the ability to shift appropriate care away from the main cancer center to network sites in surrounding communities was a key coping strategy for some urban academic centers, including the Massachusetts General Hospital Cancer Center (MGHCC) and the Abramson Cancer Center at the University of Pennsylvania.

Elizabeth Souza, MHA, Senior Administrative Director of Cancer Center Operations at MGHCC, explained during the webinar series how the pandemic increased capacity...
challenges at the main cancer center location in Boston. Due to social distancing requirements, staff redeployment to pandemic-related initiatives, and hospital space suddenly dedicated to COVID-19–infected patients, the cancer center struggled to meet oncology patient demand. Many other cancer centers around the world were in the same situation and were scrambling to find ways to ensure access to quality cancer care during the pandemic.³

The MGHCC oncology team was already working to shift patient volume and provide more specialized care at community sites within its network before the pandemic hit, but this initiative was escalated to a high priority during the pandemic. The center saw an immediate need to move some patient volume to 3 of its network sites in close proximity to the main cancer center (within 12–19 miles). This included moving new and established patients, infusion volume, and physicians to the network sites quickly and systematically during the height of the pandemic.

Ephraim Hochberg, MD, Associate Clinical Director at MGHCC, discussed how the center used an existing new patient access nursing team (11 full-time equivalents [FTEs]) to move new patients to providers across the network more effectively. This effort required standardizing workflows, visits types, and provider schedules across all network sites to make it easier to move patients. As a result of these efforts, new patient volume at the main center decreased by 6%, while new patient volume at network sites increased by as much as 25% (from 2019 to 2021). In terms of infusion capacity, the pandemic also accelerated the move to a 7-day-per-week infusion schedule. Additionally, some providers from the main cancer center opened specialized clinics at network sites that were not previously available outside of the main center. This allowed MGHCC to align these pandemic-related initiatives to its longer-term strategy of growing specific specialty programs at identified network sites.

Abramson Cancer Center at the University of Pennsylvania experienced a similar shift in patient volume from the main campus to suburban network sites during the pandemic. This shift, however, was driven by patients rather than a planned approach by the cancer center. Lawrence Shulman, MD, Deputy Director for Clinical Services at Abramson Cancer Center, indicated that patients were reluctant to come into the main cancer center located in downtown Philadelphia, even after COVID-19 safety protocols were in place and it was safe for patients to receive care. This was possibly due to patients remembering how crowded the urban centers were on any given day prior to the pandemic. The suburban sites were smaller, appeared less crowded, and were therefore less frightening to patients.

To receive healthcare services during the pandemic, patients took advantage of the large network of hospitals in the University of Pennsylvania Health System, which includes 3 hospitals and several associated ambulatory centers located in suburban and rural areas. Before the pandemic, the cancer center already had plans to expand cancer services at its community-based network sites by identifying general oncology providers at those locations to become proficient in certain disease areas through strong connections to the disease subspecialists at the main center, and through the construction of a new ambulatory site. The COVID-19 crisis fast-tracked this plan and the center quickly pivoted to meet the increased patient demand in its suburban locations. Infusion volume at the main cancer center decreased by 20%, whereas some of the suburban sites had an increase of 25% in 2020.

The need for more integrated, coordinated, and consistent care across networks has been a topic of discussion within the NCCN Best Practices Committee. A recent study by the Association of American Cancer Institutes (AACI) found varying degrees of integration among network sites and stressed the need for more uniform distribution of subspecialty expertise, clinical trials access, integrated electronic health record (EHR) systems, consistent quality measures, and standardized treatment across network sites.⁴ The pandemic may be accelerating this push toward improved communication, coordination, and “shared care” between the main cancer center and its network sites. Both MGHCC and Abramson Cancer Center are poised to expand the use of their community network sites, even after the pandemic. However, barriers to successful implementation remain. Financial incentives are often not aligned to focus on the whole health system, as each hospital is separately responsible for its profit margins. Additionally, physicians have expressed concern regarding relative value unit (RVU) generation as patients move from the main campus to community sites. These issues will need to be addressed as cancer centers work toward more coordinated care throughout their networks.

**Gains in Telemedicine Operations and Reimbursement**

The second focus of the 2021 Best Practices webinar series was, not surprisingly, telemedicine. The explosion of the use of telemedicine has been seen in almost every medical specialty and in every hospital across the United States. Scott Lawrence, DC, Deputy Director for the Division of Practitioner Services at the Centers for Medicare & Medicaid Services (CMS), stated that the number of telemedicine visits for Medicare beneficiaries went from approximately 14,000 per week (<1% of total visits) before the pandemic to >500,000 per week during the first 6 months of the pandemic (38% of total visits). This is a mind-blowing increase of >3,500%. For comparison, it took approximately 6 years for the number of US cell
phone subscribers to increase by a similar amount (3.100% increase from 1985 through 1991). Telemedicine hit this astronomical increase in a matter of months.

Anne Chiang, MD, PhD, Chief Integration Officer and Deputy Chief Medical Officer at Smilow Cancer Hospital/Yale Cancer Center, discussed how the cancer center operationalized telemedicine in multidisciplinary oncology care during this period of exponential telemedicine growth for patients seen in Smilow Cancer Hospital and its network across Connecticut and Rhode Island. The cancer center conducted 117 video visits in 2019 compared with >29,000 video visits in 2020. It needed to adapt and improve telemedicine capabilities quickly to ensure the delivery of high-quality cancer care. The center focused on 3 areas of support to improve its telemedicine operations in a very short timeframe: (1) technology, (2) provider and staff support, and (3) support for patients. In regard to technology, Dr. Chiang recommended using one telemedicine platform that is integrated into the center’s EHR (eg, Zoom embedded into Epic). Providers and staff from multiple disciplines should be engaged in developing new workflow designs for integrating telemedicine, because prepandemic workflows will need to change. Finally, centers should focus on the patient experience and making it easy for patients to have a telemedicine visit. This includes appointment reminders, technology support, and collecting and responding to patient feedback.

Dr. Chiang also noted there continues to be significant discussion about the types of oncology visits that are best suited for telemedicine. A recent survey of >1,000 oncology providers conducted by the NCCN EHR Oncology Advisory Group concluded that a significant percent of visits for patients with cancer could be effectively and safely conducted using telemedicine. Data from this survey also revealed which visit types oncology providers at NCCN Member Institutions believe are a good fit for telemedicine, such as visits to review benign data, follow-up/surveillance visits, and visits explaining important malignancy-related data (Figure 1). These survey findings are in line with the recent telemedicine recommendations published by ASCO.

Clearly, telemedicine can play a major role in cancer care delivery in the future. Unfortunately, the financial stability of this approach is of concern at many cancer centers due to uncertainty about the future of telemedicine reimbursement. Dr. Lawrence explained that before the pandemic, CMS only reimbursed video visits (phone visits were not reimbursed) that occurred in Rural Health Professional Shortage Areas located outside of a Metropolitan Statistical Area (MSA). To be eligible for reimbursement, the telemedicine visit had to be conducted by a site authorized to be an originating site. Due to the Public Health Emergency (PHE), payment for telemedicine services was greatly expanded to include many more services and sites on a temporary basis (the full list of covered services is

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**Figure 1. Preferences of oncology providers at NCCN Member Institutions regarding video versus office visit (N=766).**

*Laboratory, results imaging, pathology testing acquired between clinic visits.*
available at https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes). It is unknown how long these telemedicine services will continue to be reimbursed by CMS. The 2022 Medicare Physician Fee Schedule Proposed Rule that was posted on July 13, 2021, includes the temporary extension of many telemedicine services through the end of 2023, during which time CMS will evaluate whether to permanently cover these services.8 Dr. Lawrence also noted that CMS is analyzing a vast number of claims data for telemedicine services in an effort to assess quality of care and determine the circumstances in which telemedicine is most effective. At this juncture, however, there is uncertainty regarding the future of telemedicine reimbursement.

**Final Thoughts on COVID-19 and Cancer Care**

Operational efficiencies developed in response to the COVID-19 pandemic have resulted in new ways to provide high-quality cancer care that will continue beyond the pandemic. Many of these initiatives were in early or limited stages at cancer centers before the pandemic, but moved to center stage and dramatically accelerated in the wake of COVID-19. Payment policy and hospital financial incentives are lagging behind these significant operational improvements in the delivery of cancer care. We encourage the cancer care community to work together to help align incentives so the operational improvements gained in cancer care over the last year can be leveraged to improve the care of current and future patients with cancer.

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